

CITY OF TORRINGTON INVITATION TO BID BID # PTK-031-102104

Date of bid opening: Oct. 21, 2004 Time: 10:00AM Location: Room 109A, City Hall

Bid Bond or Certified Check required with bid: 5% Performance Bond required if awarded bid: 100 %

Submit an original bid and a duplicate copy.

The City of Torrington reserves the right to accept or reject any or all bids or any portion thereof, to waive technicalities, and to award the contract as will best serve the public interest.

Omit State and Federal Taxes.

Offili State and Federal Taxes.		
All prices must be F.O.B.: Destination (Torrington) unle	·	
Dated in Torrington: 9/27/04 Purchasing Agent _	Charlene R. Antonelli, CPPB	
Item	Price	İ
ONE (1) PLOW TRUCK PER SPECIFICATI	**************************************	_
Bid Submitted By: Name of Company Address:	Signature Title	
Delivery Date E-mail address Comments:		

INSTRUCTIONS TO BIDDERS

Sealed bids will be received by the Purchasing Agent, Room 110, 140 Main St., Torrington, CT until the time and date specified on the cover sheet and opened thereafter in the Purchasing Department, Room 110. Bids received later than the time specified will not be accepted. Amendments to or withdrawal of any section of the submitted bid received later than the time & date set for the bid opening will not be considered. Bid proposals must remain in effect for a minimum of 30 days unless otherwise noted elsewhere in the bid specifications.

BID DOCUMENTS: are available over the Internet on the City's web page, under "open bids", www.torrington-CT.org. Businesses Without Internet Access may contact the Purchasing Department at 860-489-2224 for the bid documents.

BID BONDS: shall be in the amount of 5% of the <u>total</u> bid made out in favor of the City of Torrington and issued by a Surety company acceptable to the City of Torrington must accompany each bid. A certified check, cashier's check, Treasurer's check, or money order in the same amount may be submitted in lieu of the bid bond. Bids submitted without Certified Check or Bid Bond will <u>not</u> be accepted. The City of Torrington will not be held liable for the accrual of interest on any check held by the city in conjunction with this bid. All checks or bid bonds will be refunded to the unsuccessful bidders after award of the bid by the City Council. The deposit check or Bid Bond of the successful bidder will be held in escrow until such time as the city determines that the bidder has or will meet their obligations as stated by the bid. If the bidder fails or refuses within a reasonable time after due notice that the contract has been awarded to him, to execute the same, an amount representing a loss to the city by reason of such failure shall be retained and paid into the city treasury.

REPLIES: whether bid or no bid, must have the bid number clearly identified on the outside of the envelope. Bidders not marking the envelopes with the Bid number and date/time of opening on the envelope will have no recourse against the City of Torrington or its employees. Such bidders run the risk of the bid being opened prior to the scheduled Bid Opening time. Once opened such bids are public record. Any alleged oral agreement made by a bidder or contractor with any agency or employee of the City of Torrington will be disregarded.

FREIGHT: Prices quoted shall be net delivery **F.O.B. Torrington**, **CT**. All bid prices must include prepaid delivery, assembly, and/or installation (ready for operation and/or use) of all equipment and/ or materials to the individual locations(s) as designated by the Purchasing Agent. All bid prices are to be submitted on the sheets provided on this bid. Quantities and pricing are to be listed in accordance with these sheets.

QUESTIONS: Request for interpretation of any portion of the bid may be made by telephone to the Purchasing Agent at (860)489-2225. All replies will be given verbally and a copy of any such inquiry and advice (if deemed vital to the bid by the Purchasing Agent) will be made available to each prospective bidder. Bidders should check the web site for addendums/updates 48 hours prior to the bid opening.

In the event of receipt of identical bids as to offerings, delivery, service, content, price, etc., the bid will be awarded in accordance with the information contained in the bid document, based on first received as to date and time of receipt of the bid.

NON-COLLUSION STATEMENTS: In order for bids to be considered, a non-collusive statement must be submitted with the bid. A sample non-collusive bid statement is attached. Bidders may elect to submit their own notarized non-collusion statement.

CONDITIONAL, QUALIFIED OR NON-RESPONSIVE BIDS/PROPOSALS: All bids/proposals shall be submitted in the form and manner as indicated by the bid documents and bid forms. Any proposal which is not submitted in the form and manner indicated by the bid documents or which contains information, statements, conditions, or qualifications which place conditions or qualifications on the proposal submittal for purposes of making an award, or which alter any proposal terms, conditions, specifications, or forms, which has not been previously approved by written addendum from the Purchasing Agent, or which does not meet legal requirements, shall be declared as a qualified, conditional, or non-responsive proposal and shall be rejected without further consideration. Any proposal response that does not fully respond to and comply with all detailed specifications or requests for information including execution of proposal forms, may be declared "non-responsive" and recommended for rejection. The City of Torrington shall not be responsible for any errors or omissions of the Offeror.

TAXES: Omit all State and Federal taxes from the bid. The City of Torrington is exempt from the payment of taxes imposed by Federal government and/or the State of Connecticut.

OWNERSHIP OF DOCUMENTS: All documents, including drawings, plans, specifications, videotapes, or other documents or maps prepared by a contractor pursuant to any agreement arising from this bid shall become the

property of the City of Torrington upon completion of the project or any termination of the project prior to the completion of the project.

LEGALITY: All bid offers for commodities, work, materials, or equipment hereunder shall comply in every respect with the laws, specifications and requirements of the State of Connecticut and the Federal government. Contractor will comply with the provisions of the Connecticut Fair Employment Practices Law.

LANGUAGE DISPUTES: Any disputes over the interpretation and/or meaning of any individual terms, conditions, and/or language within this Request for Bid/Proposal document shall be resolved by and at the sole discretion of the City Purchasing Agent in a manner that is in the best interest of, and best advantage to, the City of Torrington, provided any such interpretation shall be reasonable. In the event that an individual term, condition, and/or language/wording is determined at any time, including after award, by the City Purchasing Agent to be "not applicable at all" tot his contract, then the term, condition, and or language/wording may be disregarded, even though an addendum is not issued. However, if the Purchasing Agent determines that the term, condition, and/or language/wording "is applicable in part", then the term, condition, and/or language/wording will apply to the degree applicable, even though an addendum is not issued.

RESPONSIBILITY: The Contractor shall save the City of Torrington, its agents or employees, harmless from liability of any kind for all claims of labor payments and materials furnished for this work, and for use of any copyrighted or uncopyrighted composition, secret process patented or unpatented invention, article or application furnished or used in the performance of the contract of which the Contractor is not the patentee, assignee, or licensee. The successful bidder agrees to indemnify and hold harmless the City of Torrington, its agents and employees from any and all liability arising out of the successful bidders' operations, functions and/or supplied items.

The successful bidder, vendor, and/or contractor must protect all property of the City of Torrington (i.e. all floors, furniture, grass, land, etc.) from injury or other damage. Any damage so caused must be repaired by contractor/vendor at his/her own expense. At the completion of work, the vendor and/or contractor must remove from the premises all surplus materials and all debris created by same. The premises must be left in a broom-clean and finished condition acceptable to the owner or its agents. Successful bidder will furnish adequate protection from damage for all work and to repair damage of any kind; for which he or his workers are responsible, to the premises or equipment to his own work or to the work of other contractors.

DEFAULT: It shall be understood that a bidder supplying equipment and/or supplies will be considered to be in default if/when they have not delivered the item(s) within the time constraints listed in this document or subsequent purchase orders and/or contract. Bidders providing a service and/or construction will be considered to be in default if/when they have failed to meet the completion date set forth in this document or its subsequent contract and/ or purchase orders and/ or they have ceased work on the project for a period of fifteen (15) working days, cumulative or consecutive.

TRADE NAME REFERENCES: Any and all references to trade names, types, styles, model numbers, stock numbers or catalogs are intended to be descriptive only and not restrictive. The intention is to indicate to bidders the type and quality of the articles and or materials that will be satisfactory. When reviewing the information, it is the responsibility of the prospective bidder to inform the City of Torrington of any discrepancy that is found (i.e. number listed does not fit item description) Bids received on other makes or models with reference to other catalogs will be considered. The bidder is to clearly state in his bid exactly what he intends to furnish and to furnish with his bid a cut or illustration or other descriptive matter that will clearly indicate and give specification as to the product he/she proposes to furnish. Where a bid is offered on an item other than the trade standard used in the specification the item should be identified on the bid form by entering the MAKE, TRADE NAME AND MODEL NUMBER. It is understood that any substitutes and/or alternates that might be offered are guaranteed by the bidder to be of equal or better quality than is reference in the bid. The item(s) must be equivalent as to function, basic design, type and quality of material, method of construction and any required dimensions. It shall be further understood that during original as well as subsequent shipments spot checks will be performed to insure that the items received are in fact the items offered in the bid. When received, should items/materials prove to be different from what was bid in any way, the bidder agrees to the return of the items and agrees to supply correct items (per bid specifications) at the bidders expense. In the event this return action is required, it is understood the bidder may be subject to removal from the city's approved bidder's list. Bidders are cautioned that surplus, seconds, factory rejects, floor samples, close outs or distressed items are not acceptable and shipments of substitutions, defective or shop-worn equipment will be returned for a full refund at the vendor's expense.

QUANTITY: The quantities and/or materials listed in the specifications/bid sheets may be increased or decreased by the City of Torrington or its designated representative based on actual need at the time the purchase orders are placed.

QUALITY: The City of Torrington reserves the right to reject any proposal in whole or in part offering equipment and/or materials and/or services that in its or its agents opinion does not meet the quality standards desired. Such decision is final and not subject to further recourse by the bidder.

SAMPLES: forwarded by the bidder will be returned to the bidder at his request and expense. Requests for return of samples must be submitted in writing at the time the sample is given to the City of Torrington or its representative. Samples not returned to the bidder will be disposed of at the discretion of the City of Torrington or its designated representative. Large pieces of equipment submitted for evaluation and inspection are to be picked up by the bidder within 30 days of the bid opening date. Items not picked up within 30 days will be disposed of by the City of Torrington or its designated agent.

AWARD: It is the intent to award this bid in its entirety to one bidder, however, the City reserves the right to award the bid line item by line item if it is deemed in its best interest to do so. In addition, bidders are advised that should budgetary constraints dictate, part, and/or all the items in this bid may be rejected. This decision shall be considered final and not subject to recourse by the bidder.

In determining the lowest or highest responsible bidder, the City reserves the right to consider, in addition to price, the compatibility, quality, cost of maintenance and availability of parts, experience and/or past performance of the bidder, sufficiency of the financial resources of the bidder as relates to the offerings as well as the ability of the bidder to provide future maintenance and service.

Documents previously submitted to the city of Torrington will not be considered as satisfying submission requirements for this bid.

No bidder can claim any contract rights by virtue of bidding alone. Awarding of the contract means actual written notice by letter and a properly executed purchase order to the bidder or bidders to whom the bid has been awarded

OPTION TO RENEW: This contract may be extended for three (3) additional one (1) year periods, provided all terms and conditions remain in full force and effect except for the contract period being extended. This option, if exercised, is to be executed in the form of a letter of agreement, to be issued no later than 30 days prior to the expiration of the then current contract period. This option to renew requires the mutual agreement of <u>both</u> parties. Refusal by either party to exercise this option to extend, will cause this contract to expire on the original or mutually agreed upon date. The total period of this contract, including all extensions as a result of exercising this option, will not exceed a maximum combined period of five (5) years.

BONDS:

Performance Bond: The Contractor, when awarded the Bid, must submit within 10 days of the bid award, and before beginning the work or signing a contract, a Performance Bond amounting to one hundred percent (100%) of the total amount of the bid. Said performance bond must be in favor of the City of Torrington and executed by a surety company authorized to do business in the State of Connecticut. The City of Torrington reserves the right to retain the Bid Bond or Certified Check on bids below \$25,000.00 as a Performance Bond. On bids of \$25,000.00 or more the Performance Bond may be furnished in the following manner: Performance Bond, Surety Bond, Certified Check, Bank Check, Savings Account in both the City & Vendor's name or Letter of Credit

Maintenance Bond: The contractor, upon signing a contract and before beginning the work, must submit to the Purchasing Agent a Maintenance Bond to guarantee that if defects in either labor or materials becomes evident within one year after completion and acceptance of work will be fixed at no cost to the City of Torrington. The maintenance bond may be included as a portion of the Performance bond or as a separate bond. If it is issued as a separate bond said maintenance bond must be in favor of the City of Torrington and issued by a surety company licensed and authorized to do business in the State of Connecticut.

Labor and Material Bonds: Per Section 49-41 of the Conn General Statutes, on Public Works project where the estimate is in excess of \$25,000.00, a labor (payment) and material bond must be furnished to the City. Said bonds must be filed with the Purchasing Agent prior to the commencement of work.

Consent for Release of Final Payment: AIA Document G707 & G706, or equivalent, must be signed and returned by the Surety Company before final payment will be released to the contractor.

INSURANCE:

Certificate of Insurance: All insurers must have an AM Best rating of A-V11 or better and admitted to do business in the State of Connecticut. All insurance policies must include a Waiver of Subrogation whereby the insured waives its right to subrogated against the City, its subsidiaries, employees, volunteers, directors and officers. Proof of proper insurance coverage, Workers Compensation Insurance, Liability and Property damage, and Vehicle Insurance shall be filed with the City of Torrington Purchasing Agent within 10 days after the award of the bid. The Certificate of Insurance must name the City of Torrington, 140 Main St., Torrington, CT, its subsidiaries, employees, volunteers, directors & officers as the <u>additional insured</u> and filed with the Purchasing

Agent prior to commencement of work. Renewal Certificates of Insurance must be mailed to the Purchasing Agent 10 days prior to the expiration of the required coverage.

Workman's Compensation Insurance: The Contractor shall take out and maintain during the life of the contract adequate Workman's compensation Insurance for all the employees employed on said work. In case any class of employees or subcontractors is engaged in hazardous work under the contract at the site of the work is not protected under the Workman's Compensation statute, the contractor shall provide Workman's Compensation Insurance for the protection of employees not otherwise protected.

Liability Insurance: The Contractor shall take out and maintain for the life of the contract, adequate public liability insurance insuring against liability to persons not employed by him in an amount of not less than \$1,000,000.00 for injuries, wrongful death to any one person and subject to the limit for each person in an amount of not less than \$2,000,000.00 on account of one accident and property damage insurance in an amount of not less than \$1,000,000.00.

Vehicle Insurance: The Contractor shall take out and maintain for the life of the contract, adequate automotive/truck or other vehicle insurance with minimum coverages of \$1,000,000.00 each for both liability and under insured and uninsured motorist as well as any other coverages required by the State of Connecticut or requested by an official of the City of Torrington as relates to the contract.

Additional Security: The City of Torrington reserves the right to require successful bidders to enter into and such security arrangements as are deemed necessary to protect the City of Torrington, its property and goods.

PERMITS: The successful bidder agrees to obtain all work/building permits as might be required. The cost of obtaining such permits is the responsibility of the bidder. The City of Torrington reserves the right to waive local permit fees. In addition, it shall be understood that where property lines are to be considered, bidders are to verify said lines and measurements with proper City Officials prior to commencement of work. It is to be understood that any/all specifications and/or plans or drawings contained in or developed as a result of the bid process are and shall be presented subject to the approval of the City of Torrington planning, zoning and building officials and that awards made prior to said approval are subject to cancellation.

PREVAILING WAGE: When the State of Connecticut Prevailing Wage Rate is applicable to the bid, the successful bidder must submit a Certified Payroll Record prior to any request and/or invoice for payment.

SAFETY:

Machine and/or Equipment Hazard Assessment and Safety Training: Upon delivery of machines and/or equipment, suppliers are required to provide to the end-user employees, at no additional charge, a training session which will emphasize hazard awareness and assessment and the safe use of such machinery/equipment.

Occupational Safety and Health Act of 1970: Seller shall warrant that the machinery, equipment or other materials covered hereby shall upon delivery to the City of Torrington, be in compliance with the standards required by said Act and any updates as pertain to or reference said Act as well as the standards required by comparable State and local laws, if any, for such machinery, equipment or other materials in effect at the time of delivery.

Machines and/or Equipment Lockout/Tagout: In an effort to comply with OSHA's final rule on the control of hazardous energy sources, vendors must warrant that any and all machines and/or equipment as is covered under this bid will be supplied and/or installed equipped with lockout/tagout devices as prescribed by OSHA.

Toxic Substance Control Act (PL94-469): Seller warrants that each and every chemical substance constituting or contained in the products sold or otherwise transferred to the City of Torrington under this bid and subsequent purchase orders is not on the list of prohibited chemical substances compiled and published by the Administrator of the Environmental Protection Agency pursuant to Act PL94-469 and are otherwise in compliance with said Act.

Hazardous Materials: Any materials required by this bid and subsequent purchase orders that are hazardous under federal, state, or local statute, ordinance, regulation, or agency order will be packaged, labeled, marked and shipped by the seller to comply with all federal, state and local regulations then in effect including but limited to the provisions of the Hazardous Materials Transportation Act and Regulations promulgated thereunder and will further comply with any special requirements and any policies and procedures of the City of Torrington relating to the purchase of hazardous materials as might be noted on subsequent purchase orders or otherwise communicated to seller in writing.

Material Safety Data Sheets: Shall be provided by the Seller upon delivery to the City of Torrington of any goods having constituents listed in the following references - OSHA 1910, ACHIG Current Threshold Values, DOT HazMat Table 49, IARC Carcinogen List, National Toxicology Program Carcinogen List, and/or Radioactive

Materials. These Material Safety Data Sheets must be consistent with and include information required by the OSHA Hazard Communication Standard published as 29 CFR 1910.1200, as the same may be amended or supplemented from time to time.

Asbestos: Bidders are advised that asbestos-containing material may be located in the boiler rooms, pipe tunnels, storage areas and various portions of City buildings. Before proceeding on any contractual work on City buildings or their interiors, it is mandatory that bidders familiarize themselves with the asbestos-containing material and that said material be considered as a health hazard and all precautionary measurers according to the Ahera Rules & Regulations be observed. It is the bidder's responsibility to notify all employees and/or subcontractors of this notification.

SUBCONTRACTORS: The successful bidder shall not employ any subcontractor to fulfill any of the duties herein specified without express, prior written approval of the City of Torrington or its designated agent.

EEO: The successful bidder shall provide any/all additionally required, affirmative action statements, fair employment plans and non-discrimination programs and statement as might be required by the City of Torrington. In connection with the execution of this bid, subsequent purchase orders and/or contracts, the seller shall not discriminate against any employee or applicant for employment because of age, race, religion, color, sex or national origin. Bidders must comply with all rules & regulations of the Department of Labor with regard to Equal Employment Opportunities as pertains to municipalities.

TERMINATION OF CONTRACT: Any contract entered into by the City and the successful bidder shall provide that the City may terminate the contract upon thirty (30) days notice to the bidder.

The City of Torrington reserves the right to award or reject any or all bids, or any portion thereof, to waive technicalities, and to award the bid and/or contracts to one or more bidders submitting essentially identical proposals and, that in the city's judgment, will best serve the public interest. The terms and conditions of these "Instructions To Bidders" are made a part this bid.

SAMPLE FORM

Bid #				
NON-COLLUSION AFFIDAVIT				
STATE OF COUNTY OF	F			
ı,that:	, being first duly sworn, deposes and says			
1. I am	, the bidder that has			
submitted the attached request for proposal for				
2. I am fully informed respecting the preparate circumstances respecting such bid;	tion and contents of the attached RFP and of all pertinent			
3. Such Bid is genuine and is not a collusive	or sham Bid;			
parties of interest, including this affiant, has in any indirectly with any other Bidder, firm or person to s work for which the attached Bid has been submitted by agreement or collusion or communication or coprice or prices in the attached Bid or of any other the Bid price or the price of any Bidder, or to secure	partners, owners, agents, representatives, employees or a way colluded, conspired, connived or agreed directly or submit a collusive or sham Bid in connection with the ed nor has it in any manner, directly or indirectly, sought enference with any other Bidder, firm or person to fix the Bidder, or to fix any overhead, profit or cost element of the through any collusion, conspiracy, connivance or the ty of Torrington or any person interested in the proposed			
	Bid are fair and proper and are not tainted by any ement on the part of the Bidder or any of it agents, interest, including this affiant.			
	Signed			
	Title			
Subscribed and sworn to before this, 20				
Notary Public	_			
My commission expires				

SAMPLE FORM

BID #			
CONSENT OF SURETY COMPANY TO RELEASE FINAL PAYMENT			
City [] Architect [] Contractor [] Surety [] Other []			
PROJECT/BID NUMBER :			
TO: City of Torrington Attn: Purchasing Agent 140 Main Street Torrington, CT 06790			
CONTRACTOR:			
	 		
In accordance with the provisions of the Contract to Contractor as indicated above, the (insert name &			
OUDETY COMPANY 1 1 1 (/			
, SURETY COMPANY on bond of (ir Contractor)	nsert name & address of		
CONTRACTOR, hereby approves of the final payr payment to the Contractor shall not relieve the Sur CITY OF TORRINGTON as set forth in the Surety	rety Company of any of its obligations to the		
Subscribed and sworn to before this day of, 20			
	Surety Company		
			
	Authorized Representative's Signature		
Notary Public	, <u>G</u>		
My commission expires	Title		
My commission expires	Title		

CITY OF TORRINGTON PLOW TRUCK SPECIFICATIONS

A. GENERAL SPECIFICATIONS:

- 1. GVWR: 25,999
- 2. WB 140"
- 3. CA 72.9"
- 4. Truck must meet the CONN-OSHA noise requirements.
- 5. Truck to be equipped with a Beka-Max lube system this system can be supplied and installed by Lubrication Technologies, Inc. 168 Windsor Street West Springfield, MA 01089-3530. Both the truck supplier and the body and equipment supplier will work with Lubrication Technologies to assure the lubrication needs and number of grease points for there equipment are met.

B. FRAME:

- 1. Rails, High strength low alloy steel (80,000 PSI yield).
- 2. 10.250" x 3.092" x 0.375".
- 3. Frame shall extend 18-24" past the front grille for installation of plow frame (must be integral; bolt on extensions will not be accepted).

C. AXLES:

1. FRONT:

- a. Non-driving, I-beam type, 10,000 lb capacity.
- b. Springs parabolic, taper leaf; 10,000 lb capacity.
- c. Auxiliary front springs shall be rubber.
- d. Power steering with a Sheppard M-100 steering gear.
- e. 18" 2- spoke steering wheel.

2. **REAR**:

- a. Single reduction Dana Spicer 17060S.
- b. Capacity 17,500 lbs w/190 wheel ends.
- c. Gear ratio 6.17
- d. Axle will be equipped with a Detroit Locker No-Spin.
- e. Magnetic drain plug.
- Suspension Vari-Rate springs 23,500 lb capacity with 4,500 lb rubber auxiliary spring.
- g. Synthetic oil.

D. BRAKES:

- 1. Front brakes 15.0" x 4.0" Air S-Cam w/MGM long stroke brake chambers.
- 2. Rear brakes 16.5" x 7.0" Air S-Cam w/MGM TR3030 long stroke brake chambers.
- 3. Air Compressor Bendix Tu-Flo 550 13.2 CFM.
- 4. Dust shields both front and rear.
- 5. Brake system, Air dual system for straight truck applications.
- 6. Air pressure gauges located in instrument cluster air 1 and air 2 gauges.
- 7. Automatic slack adjusters both front and rear.
- 8. Parking brake, spring actuated rear brake chambers.
- 9. Bendix Antilock Brake System, Full vehicle wheel control system (4- channel).
- 10. Air Dryer, Bendix AD-9 w/heater.
- 11. Drain valve manual w/ pull chain for air tank.
- 12. Brake lines color coded nylon.

E. ENGINE:

- 1. Diesel wet sleeve 225 HP, 560 lb-ft torque @ 1,400 RPM minimum.
- 2. Calculated geared speed 65 MPH.
- 3. Exhaust and compression braking.
- 4. Exhaust system, single stainless steel muffler w/internal catalic converter, vertical tail pipe with guard; frame mounted on right side of truck.
- 5. Radiator aluminum cross flow w/nylon fan.
- 6. Radiator hoses premium rubber.
- 7. Heater hoses silicone.
- 8. Air cleaner restriction gauge.
- 9. Fuel/water separator
- 10. Engine shut down key operated
- 11. Engine drain plug magnetic
- 12. Fan drive Borg-Warner SA85 viscous screw on type.
- 13. Hand throttle engine speed control.
- 14. Inside/outside air cleaner snow valve.

F. ELECTRICAL:

- 1. 12 VOLT
- Circuit breakers w/manual reset replaces all fuses except for 5-amp.
- 3. Single electric horn.
- 4. Electric windshield wiper w/2 speed and intermittent festure.
- 5. Cigar lighter.
- 6. Alternator Leece-Neville 110 amp.
- 7. Batteries (2) 12 volt maintenance free.
- 8. Body Builder wiring; includes sealed connectors for tail/amber turn/marker backup/accessory power/ground and sealed connector for stop/turn. Located back of standard cab at left frame.
- Tail light wiring to be modified to the following; Wiring for the standard left tail light and right tail light shall have an extra 8 foot of cable for right and left tail lights mounted in body.
- 10. Switch body circuits MID for bodybuilder, 6 switches in instrument panel; one power module with 6 channel; 20 amp max. per channel and 80 amp max output; switches control the power module through multiplex wiring.
- 11. All lights wherever possible will be LED. Lighting package for entire truck will be presented at time of bid opening.
- 12. Trailer connection socket mounted at rear of frame, wired for turn signals combined with stop, compatible with trailers that use combined stop, tail, turn signals.
- 13. Toggle switch for work light, lighted on instrument panel wired to back of cab.
- 14. Headlights halogen, composite aero design for two light; includes daytime running lights.
- 15. Starting motor Leece-Neville; less thermal over-crank protection.
- 16. Auxiliary harness 3' for auxiliary front head lights and turn signals for front plow applications.
- 17. Radio AM/FM stereo w/weatherband, clock, and multiple dual cone speakers.
- 18. Engine control, remote mounted provision for; wiring for body builder installation of PTO controls; with ignition switch control for CEC II electronic engines.

G. TRANSMISSION:

- 1. Allison automatic; Allison 3000 RDS P close ratio, 5-speed w/overdrive.
- 2. Transmission includes oil level sensor and PTO provision.
- 3. Transmission oil pan magnet.
- 4. Transmission shift control Allison T-Bar type.
- 5. Allison spare input/output for rugged duty series (RDS).
- 6. Synthetic oil.

H. FUEL TANK:

. Fuel tank top draw; D style, non-polished aluminum, 50 U.S. gal. W/quick connect outlet, mounted left side under cab.

2. Fuel lines nylon tubing w/O-Ring Snap-On quick connect fittings at both ends.

I. CAB:

- 1. Conventional steel.
- 2. Five clearance lights LED if possible.
- 3. Floor covering black rubber with additional "catch-all" style floor mats on both drivers and passenger sides.
- 4. Tinted glass
- 5. Gauge cluster speedometer, odometer w/miles, engine hours, engine oil pressure, water temperature, fuel, tachometer, voltmeter, transmission oil temperature (Allison Transmission).
- 6. Warning system low fuel, low oil pressure, high engine coolant temperature, and low battery voltage.
- 7. Air cleaner restriction gauge mounted in instrument panel.
- 8. Both seats will be National 2000 air suspension, high back w/integral headrest, vinyl, isolated, w/2-position front cushion, and lumbar support.
- 9. Seat belt 3-point, lap and shoulder belt type.
- 10. Mirrors Lang Mekra rectangular 7.44" x 14.84", breakaway bracket type, and w/7.44 "sg. convex, on both sides, w/all heads heated and thermostatically controlled
- 11. Chrome grab handle w/anti-slip rubber inserts on left side only.
- 12. Heater with defroster and silicone hoses.
- 13. Deluxe cab interior trim.
- 14. Air horn Grover single trumpet.
- 15. Hood front-end tilting, fiberglass, hood shall have two service hatches, and a stationary grille.
- 16. Steering column shall be of the tilt type.
- 17. Front bumper will be steel full width.
- 18. Paint color will be Omaha Orange; Aluminum body need not be painted.

J. WHEELS:

- 1. 22.5" front disc, 10-stud hub piloted w/flanged nuts.
- 2. 22.5" dual rear wheels, 10-stud hub piloted w/flanged nuts.
- 3. Front wheels will be oil lubricated.

K. TIRES:

- 1. Front 10R22.5 Goodyear G149, load range F, 12 ply.
- 2. Rear 10R22.5 Goodyear G124 M+S, load range F, 12 ply.

L. MANUALS:

1. Complete operators, parts and service manuals will be supplied with truck.

PLOW TRUCK BODY, PLOW FRAME, HYDRAULIC SYSTEM

GENERAL:

The purpose of this specification is to describe a dump body and related equipment. All items shall be supplied, installed and delivered by a single source. Successful bidder shall supply drawings and detailed component list for all items included in the following specification. All warranties shall be stated in writing with bid proposal. Any exceptions to the specification shall be clearly stated in writing on bidder letterhead and spelled out in detail to exceptions and /or alternate proposals. Each unit shall comply to all state and federal codes and regulations. Successful bidder shall supply final certification of maximum gross vehicle weight rating. All body material shall include mill certification.

All component installation shall conform to the latest recommendation, procedures and regulations of the following organizations. ASME - ASTM - AISI - API - AWS - DOT - FPS - ICC -ISO - JIC - MSS - NFPA - NEMA - NTEA - SAE - TTMA - USASI.

THE USE OF ANY OF THE FOLLOWING ITEMS OR PRACTICES SHALL NOT BE ACCEPTED:

Non-steel fittings on hydraulic pressure lines.

Excessive use of elbows on hydraulic lines.

Use of thread tape on hydraulic fittings.

Use of galvanized fittings or components on hydraulic system.

Improper hydraulic line size.

Use of high pressure hose for hydraulic suction line.

Scotchlok type wire splices.

Non insulated wire splices.

Improper hose or wire routing near exhaust, over sharp edges or through holes without grommets.

Unfinished or sharp edges.

Improperly prepared, primed and painted surfaces.

Non-fused electric circuits.

Hydraulic circuits without pressure relief protection.

Dissimilar metals without liner.

All hydraulic hoses and wiring shall be securely clamped at approximately 18" intervals, shielded from exhaust and include a protective sleeve where necessary to prevent damage and or failure. All hoses shall have jic swivel connections at each end and located in such a manner to aid in easy component replacement. All systems shall be thoroughly tested and tuned before delivery.

Complete wiring and plumbing diagrams shall be included <u>with bid proposal</u>. An operation manual as well as a separate parts and maintenance manual shall be provided with each unit. A full day of training or more if deemed necessary by the Superintendent of Equipment Maintenance, shall be provided for operators and maintenance personnel for each location specified.

All components shall be of American manufacture, totally produced, supplied and assembled in the United States whenever possible.

The City of Torrington has the right to reject any and all bid proposals, or any portion thereof.

No equipment shall be accepted prior to suc	ccessful inspection by the using agency
Bidder shall supply its ISO 9001- 2000 certification #	#

Dump body:

- A. <u>Body</u> will be a J& J Dyna Hauler DDA all aluminum all season's body or equal.
- B. Length 102" (81/2')
- C. Width 96" (8')
- D. 24" sides with no side boards.
- E. ½ cab shield: .1875 x 5454 one piece
- F. F<u>loor</u> ¼" 5454-h34
- G. Long members 6" i-beam
- H. Cross members 4' i-beam
- I. <u>Dirt shedder bottom rails</u>
- J. Floor thickness .375 x 5454-h34 one piece
- K. **Sides** .250 x 5454-h34 one piece
- L. Bulkhead .250 x 5454-h34 one piece
- M. <u>Tailgate</u> .250 x5454-h34 main sheet with bracing of 6061-t6. All chains shall be covered with nylon mesh, pins shall be 1.25 dia. Offset style and greaseable. All related hardware shall be stainless steel and will be supplied by bidder.

- N. Walk rail 3" wide bustin tread, both sides.
- O. Flaps neoprene anti sail
- P. <u>Fenders and flap</u> shall be sized and mounted so not to exceed 22 degree federal regulation.
- Q. <u>Mud guards</u> will be "spraymate" fenders, black with stainless brackets bolted to chassis.
- R. <u>Ladder</u> slide out style mounted on right side of body.
- S. 3/4" grab handles mounted on both sides of body.
- T. Aluminum shovel bracket
- U. Air operated tailgate
- V. Bolt on rear apron aluminum construction 1/4" x 8" x 96".
- W. All lighting will be "led" no exceptions
- X. Four light strobe systems: strobe light system shall be designed to provide a minimum of one hundred thousand hours (100,000 hrs.) Four amber lamps shall be mounted in sides and face of cabshield. One left side near front, one right side near front and two in face not to interfere with clearence lamps. All lights shall be rubber shock mounted in a vinyl grommet and have a minimum of twelve (12) square inches lighting, oval design. Lens and housings shall be sealed polycarbonate. All lights shall be supplied via 18 ga. 3 conductor neoprene jacketed cable rated to 600 volts and wired to flash alternately. Entire light system shall be controlled via a cab mounted properly labeled lighted rocker switch. No power pack shall be required to operate the triple flash "led" strobe lights. Switch shall be located within easy reach of operator. All lights shall be mounted in accordance to FMVSS108 and SAE JL318. Lights shall operate between eight and sixteen volts.
- Y. Rear body post lights: install two minimum twelve (12) square inch oval stop, turn and tail lights, mounted one in each rear corner post. Completely sealed, shock mounted and wired into chassis light system. Lights shall be located according to all federal lighting standards and practices (FMVSS108). Lights shall have diamond shell polycarbonate lens and housing completely sealed and include a heavy duty, shock mounted led light system. Each diode style light system shall be 14 volt, .42 amp. Turn function, .3 amp stop function and .1 amp tail function. Mounting grommet shall be made of vinyl. All wiring shall be sealed, routed to prevent damage from heat, sharp edges and moving parts. Wiring shall terminate within a high impact plastic junction box to prevent failure. All wires shall be connected to a approved electric insulating plastic terminal block located inside the junction box. Wire entry through junction box shall be via a three piece plastic and pvc compression fitting. Mounting shall not decrease the integrity of the body design and strength.
- Z. Two light strobe systems: strobe light system shall be designed to provide a minimum of one hundred thousand hours (100,000 hrs.) Operation. Two amber lamps shall be mounted in rear corner posts (one on each side). Both lights shall be rubber shock mounted in a vinyl grommet and have a minimum of twelve (12) square inches lighting, oval design. Lens and housings shall be sealed polycarbonate. Both lights shall be supplied via 18 ga. 3-conductor neoprene jacketed cable rated to 600 volts and wired to flash alternately. Entire light system shall be controlled via a cab mounted properly labeled lighted rocker switch. No power pack shall be required to operate the triple flash "led" strobe lights. Switch shall be located within easy reach of operator. All lighting shall be in accordance to FMVSS108 and SAE J1318. Lights shall operate between eight and sixteen volts.

AA. <u>Custom heavy front frame plow hitch:</u> plow hitch shall be designed to mount to the front frame extension of the chassis. The design shall be of such as to provide tilting of truck hood without contact with plow hitch in the plow down

position. No pins or hydraulic cylinders shall be incorporated into hitch to facilitate hood tilting. An offset lift system when required shall be incorporated into hitch design to allow the use of a front mount hydraulic pumps without excessive frame extension or pump protrusion. Plow hitch shall be capable of mounting to various frame widths and heights without major modifications. All work shall be of the latest designs and of the highest quality set forth by the following agencies. ASME - ASTM - AISI - API - FPS - ICC - ISO - JIC - MSS - NFPA - NEMA -OSHA - SAE - USASI -AISI - ATA - AWS - BCI -IFI - NTEA - TRA. Side plates shall be minimum thickness of 1/2" a-36 plate reinforced from top to bottom with two gussets, each side, of 1/2" x 3-1/2" hr steel. Side plates shall be of sufficient height and width to allow proper mounting height and strength to accommodate the specified plow. Side plates shall be attached to chassis via minimum of four 1" grade 8 bolts and four 5/8" grade 8 bolts on each side. All plow mounting ears shall be a minimum of 3/4" thickness of a-36 steel. Plow mounting to be specified by using agency. The bottom crosstube, when required, shall be square tubing, 5/16" x 4" x 4" minimum. Top cross tube shall be round, 4" dia. OD and 3" dia. ID. Plow hitch lift arm and torque arm shall have a minimum thickness of 1" A-36 plate and sized for proper strength and lift height of plow. The lift arm and torque arm shall be joined together via a round tube, minimum 2-1/2" OD and 2" ID x 8" and reinforced with a 1/4" a-36 steel gusset. Top cross tube shall be supported by two bearing blocks, 1-1/2" a-36 steel. Bearing blocks shall have grease fittings and attached to side plates via four 5/8" grade 8 bolts each. Bottom cross tube shall be attached to side plates via 1/2" end plates using four 5/8" grade 8 bolts and backed with 1/2" x 2" shear plates. Hitch shall be manufactured and installed by an iso9001 - 2000 certified facility. List ISO9001 -2000 certification # Manufacturing facility shall have on line warranties procedure processing to expedite claims. Lower portion (below frame) of side plates shall include reinforcement x bracing, minimum of 1/4" x 2" x 2" square tubing. Hydraulic cylinder mounting ears shall be minimum of 1/2" a-36 steel, sized and located for correct cylinder mounting. Mounting pins shall be minimum 1-1/4" dia. hrr steel and include washers and cotter pins. All bolts shall include flat washers and Nylock nuts. The plow lift cylinder shall be 4" x 10" double acting with nitrited rod and welded construction. Lift cylinder shall have vee packing and cups and be field serviceable. Overall length of cylinder shall not exceed 20" pin centers and hydraulic ports shall be 3/8" npt lifting capacity shall

AB. Plow attachment shall be as stated below:

be 25,000 pounds minimum with 2" minimum rod size.

- 1. 30" centers.
- The main lift arm shall incorporate a telescoping arm with a minimum of four (4) positions. Main arm shall consist of 3/8" x 4" x 4" square tubing and secondary arm 3/8" x 3" x 3" properly sized and reinforced to withstand severe duty. Arm stroke shall be a minimum of 18".
- 3. Plow hitch shall include the ability to have the lift cylinder rod end relocated and pined as to allow the lift arm to fold down and pined to reduce forward protrusion of the hitch assembly. Removal of the lift cylinder from the vehicle shall not be acceptable. Center lift arm shall replace offset style torque arm.
- 4. Pintle hook and plate a formed steel plate of industry required thickness, full width of chassis frame rails, with 3" return flange at bottom shall be bolted to chassis frame. Bottom and side support gussets shall be included. Two (2) swivels 3/4" cold rolled steel d loops, 3" i.d. minimum shall be attached to bottom flange. Properly sized grade (8) eight bolts shall be used throughout installation. Pintle hook height shall be 26" from ground to center unless otherwise specified by the department.

Pintle hook shall be attached to frame plate via grade eight (8) bolts and in accordance to manufacturers specifications. Capacity of pintle hook shall be a 50,000 # Wallace Forge. Attach chassis air lines to pintle plate.

- 5. Brake control: a heavy duty electric brake control shall be cab mounted within easy reach of operator. Brake controller shall be properly wired to the six- prong trailer plug. System shall be capable of supplying adequate 12vdc power to operate a minimum of a dual axle trailer.
- 6. Manual hydraulic system the purpose of the hydraulic system is to operate a dump body double acting hoist, single acting plow lift, power angle plow and two function spreader circuit. System shall be powered via an automatic transmission mounted power take off. All controls and components shall be of the latest design and installed to provide simple and convenient operation.
- 7. All hydraulic components shall be installed and serviced by a single manufacture.

Pump: (gear)

A single section all cast iron pump shall be the sole source of power used to provide all hydraulic equipment. Pump shall be capable of 3500 psi and 3000 rpm and shall include pressure loaded powdered metal wear plates. The drive gear and shaft shall be a one-piece construction for maximum strength. The pump shall be sized to have a 25 gpm output at maximum engine rpm. Pump shall utilize bushing design and include a SAE B shaft and mounting flange for direct or remote mounting. Four bolt split flange ports are to be located on each side to provide hook up of discharge and suction hoses. All casts parts shall be class 30 gray iron. Pump bushings shall be steel backed bronze with PTFE coating. Pump port size shall be at least 1" discharge and 1-1/2" inlet.

Directional control valve: PC25

The hydraulic control valve shall be capable of 45 gpm and 4000 psi and cast from gray iron. Valve shall have symmetrical spools for ease of right or left hand operation. Spool seals shall be fitted in counter bores for ease of maintenance and spool operation. All valve sections shall be interchangeable and stackable for ease of add-on functions for future hydraulic operations. A full flow pilot operated screw adjustable relief valve shall be set at required maximum operating pressure to protect the entire hydraulic system when in the dynamic condition. Additional full flow pilot operated screw adjustable port relief shall be used, where required, to protect all static conditions. Port reliefs shall be preset as required and also incorporate anti-cavitation checks. The control valve shall be designed to accept bonneted housings for sealed cable operation. All spools shall have 3 position, 4 way, spring return to center operation unless required otherwise. The hydraulic valve sections shall have built in transition checks to provide smoother operation of all functions. A high pressure carryover shall be capable of being installed when required. Valve shall be post compensated "flow sharing".

Hydraulic control valve operation:

All hydraulic valve operations shall be achieved from within the cab by a single operator. The controls shall be connected to the valve via "DOT" approved air line of proper size for valve performance. All cab controls shall be completely sealed and connection of air line shall be with push lock "DOT" approved fittings. These controls shall provide full proportional operation. All connections shall be routed to prevent failure due to heat, sharp edges and improper bends. Dump body control shall include a neutral lock position.

Spreader control system:

The spreader control system shall maintain individual adjustable flows to two separate circuits regardless of down stream system pressure. The spreader system shall be capable of variable signals for proper function. Excess hydraulic flow shall be bypassed to a downstream circuit. Each flow circuit shall be completely adjustable and provide positive placement settings as required for desired spreader operation. The spreader control system shall be located within the cab to provide ease of operation by the operator. Spreader circuit shall be internally shuttled to provide smooth operation between auger /conveyor and spinner circuits. All plumbing shall be located and shielded to protect cab personnel.

Oil reservoir and accessories:

The oil reservoir shall be not less than thirty (30) gallon capacity, constructed of 3/16" aluminum and cushion mounted to the chassis. An internal baffle shall be located to prevent return oil flow from venting directly to suction port. A fifty (50) gpm return line filter with a ten (10) micron spin on canister shall include an electric sending unit to activate a light mounted in the cab. The filter shall be connected to a drop tube, discharging return oil flow through the top of the tank to allow filter element to be changed with out the use of any type of shut off valve. Drop tube tapered outlet shall be below oil level at all times to prevent air entrainment. An inlet stainless steel suction strainer of one hundred and twenty five (125) micron shall be located within the reservoir and mounted in a manner to be submerged at all times. The strainer shall include a three (3) psi by-pass and have a rating of not less than forty-seven (47) gpm. A ten (10) micron screw lock breather cap with basket shall be mounted on the top of the reservoir. Breather cap shall have a displacement of not less than one hundred-fourteen (114) gpm. A twelve (12) inch diameter steel clean out cover with a silicone gasket shall be installed on the top of the reservoir to allow easy access to all internal tank accessories. Clean out cover shall be dome shaped and be removable by removing a single bolt and crush washer. A five (5) inch combination level temperature sight glass must be located in a visible but protected location. A magnetic drain plug shall be installed at the lowest point of the reservoir. A one-one half (1-1/2) inch full flow onequarter (1/4) turn ball valve shall be located in the suction line as close to the reservoir as possible. Reservoir shall be cleaned and filled with ISO32 hydraulic oil. Oil shall be filtered through a ten (10) micron filter at time of initial reservoir filling. Upon start up, hydraulic system shall be operated at maximum flow for not less than fifteen minutes and than have a new filter element installed. Internal painting or galvanizing of reservoir is not acceptable. A spare filter element shall be included with completed unit.

Installation practices:

All component installation shall conform to the latest recommendation, procedures and regulations of the following organizations. ASME - ASTM - AISI - API - FPS - ICC - ISO - JIC - MSS - NFPA - NEMA - OSHA - SAE - USASI. The use of any of the following items or practices shall not be accepted:

Non steel fittings on hydraulic pressure lines

Excessive use of elbows on hydraulic lines

Use of thread tape on hydraulic fittings

Use of galvanized fittings or components on hydraulic system

Improper hydraulic line size

Use of high pressure hose for hydraulic suction line

Scotchlok type wire splices

Non insulated wire splices

Improper hose or wire routing near exhaust, over sharp edges or through holes without grommets, unfinished or sharp edges

Improperly prepared, primed and painted surfaces

Non-fused electric circuits
Hydraulic circuits without pressure relief protection

All hydraulic hoses and wiring shall be securely clamped at approximately 18" intervals, shielded from exhaust and include a protective sleeve where necessary to prevent damage and or failure. All hoses shall have JIC swivel connections at each end and located in such a manner to aid in easy component replacement. All systems shall be thoroughly tested and tuned before delivery.

Complete wiring and plumbing diagrams shall be included with bid proposal. An operation manual as well as a separate parts and maintenance manual shall be provided with each unit. A full day of training must be provided for operators and maintenance personnel for each location specified. All training shall be completed by a fluid power society member with a minimum of 200 hours of certified hydraulic training.

Hydraulic hose:

All hose and hose ends shall be matched and assembled on a matched hose machine to prevent hose failure. All hydraulic plumbing practices shall conform to jic h11 standards. Pressure hoses shall be 100r2, return lines shall be 100r1 and suction lines shall be 100r4. Velocity in pressure lines must not exceed twenty (20) feet per second, return lines not to exceed ten (10) feet per second and velocity not to exceed four (4) feet per second in suction lines. All hoses shall include JIC female swivel ends with the exception of the suction line. All hydraulic components shall have SAE porting wherever possible.

Quick couplers:

The hydraulic system plow and spreader functions shall be provided with quick couplers for easy connect and disconnect of plow and spreader equipment. All quick couplers shall be located to facilitate easy connection with a gloved hand. All connections shall be identified via a metallic label attached to the hydraulic hose or to a mounting bracket at

Coupler location. All quick couplers shall be attached to mounting bracket via a steel bulkhead fitting which includes a one piece body having npt male thread on one end for attaching the quick coupler and a thirty seven degree JIC male thread on the other end for attaching the hydraulic hose. Pipe nipples welded to a bracket are not acceptable. All quick couplers shall be sized to provide minimum pressure drop based on flow requirements of each hydraulic circuit. Quick couplers shall be interchangeable with ISO 7241-1 "a" and meet ISO9002 quality control standards. Material shall be steel with wear parts carbon-nitrited. Valves shall be tempered steel, springs C98 and bearings 100 C6. The complete assembly shall be zinced and yellow passivated. Temperature range must be -25 degree to +125 degree Celsius. All pressure ratings shall be minimum of 150 bar for size 32 and include a 1:4 dynamic safety factor and a 1:2 static safety factor. All

Couplers shall include dust covers made of oil proof pvc to withstand temperatures of -30 degree to + 150 degree Celsius. Dust covers shall also have an integral retainer strap with loop to prevent loss. All assemblies shall be mounted male / female opposing to prevent improper connection.

Both halves of all couplers shall be supplied.

Transmission Power Take Off

Power tap: Chelsea

When a "hd or md series" world "Allison automatic transmission is present and includes power take off openings the following specification shall prevail. The transmission shall provide two (2) openings, one on either side and utilize a ten (10) bolt mounting pad. The power take off shall be sized to exceed the maximum torque and horsepower demands required when the pump is operating at maximum. A ratio of one hundred-twenty five percent (125%) shall be used with diesel engine. ASAE "c" straight keyed shaft shall be included on this hot shift power take off

whenever direct pump mounting is not possible. PTO engage and disengage capability shall be included and provide live power whenever the engine is in operation and PTO switch is activated Entire hydraulic system shall function simultaneously regardless of gear pump components.

All aftermarket components shall be integrated to chassis when chassis manufacturer provides interfaces.

EXCEPTIONS TO THIS BID SPECIFICATION MUST BE
SUBMITTED IN WRITING IN COMPLETE DETAIL AND ON
COMPANY LETTERHEAD AT THE T IME OF THE BID PROPOSAL
SUBMISSION. EXCEPTIONS NOT SUBMITTED WITH THE BID
PROPOSAL SHALL BE DEEMED "NON-RESPONSIVE" CAUSING
THE BID TO BE REJECTED.